

New Claims

21. A grinder head comprising:
a grinding bowl for holding a charge of material to be ground and having a boss fixed to a bottom wall of the bowl and projected into the bowl; and , a grinder ring locatable over the boss and freely moveable within the bowl.
22. The grinder head according to claim 21 wherein said grinder ring, boss and bowl are relatively dimensioned so that when an inner circumferential surface of the grinding ring contacts a side wall of the boss, an outer circumferential surface of the grinder ring is spaced from the inner surface of the side wall of the bowl, whereby the grinder ring is freely moveable within said bowl.
23. The grinder head according to claim 21 wherein said grinder ring has a lower axial end which is disposed nearest said bottom wall when said head is in use, and an opposite upper axial end, and wherein a portion of the outer circumferential surface of said grinder ring adjacent said lower axial end is substantially conical in shape, the conical shaped portion decreasing in a direction from the lower axial end toward the upper axial end.
24. The grinder head according to claim 21 wherein said grinder ring is provided with a handle for manual handling of said grinder ring.
25. The grinder head according to claim 24 wherein said handle is in the form of an inflexion formed about an outer circumferential surface of said grinder above said substantially conical shaped portion.
26. The grinder head according to claim 21 wherein said side wall of said boss and an inner circumferential surface of said grinder ring are relatively shaped to co-act with each other for grinding a portion of the charge therebetween.

27. The grinder head according to claim 22 wherein said side wall of said boss and said inner circumferential surface of said grinder ring are relatively shaped so that on contact of said inner circumferential surface of said grinder ring with said side wall of said boss said grinder ring is urged to ride up said boss so that said grinder ring orbits in an inclined plane about said boss, forming a moving zone between said lower axial end of said grinder ring and said bottom wall of the bowl for grinding the charge of material.
28. The grinder head according to claim 21 wherein said boss is detachably fixed to said bottom wall of said bowl.
29. The grinder head according to claim 21 wherein said bowl has a side wall or skirt made from a plastic material.
30. The grinder head according to claim 21 wherein said bowl has a lid made of a plastic material.
31. The grinder head according to claim 30 wherein said lid and said side wall of said bowl are relatively configured to be snap fit together.
32. The grinder head according to claim 30 wherein said lid and said side wall are formed as a single integral unit adapted to be fixed to said bottom wall.
33. The grinder head according to claim 29 wherein said side wall of said bowl is fixed to said bottom wall by integrally molding said side wall with the bottom wall.
34. The grinder head according to claim 30 wherein said lid is shaped to form a receptacle when said bowl is inverted for collecting the ground charge.

35. A bowl for a grinding head, said bowl comprising:
a side wall or skirt made from a plastic material having first and second axial ends;
and, a base plate forming a bottom wall of said bowl against which a charge of
material can be ground, said base plate coupled to said second axial end of said side
wall skirt.
36. The bowl according to claim 35 further comprising a lid, said lid and said side wall of
said bowl are relatively configured to be snap fit together.
37. The bowl according to claim 36 wherein said lid is made of a plastic material.
38. The bowl according claim 36 wherein said lid and said side wall of said
bowl are formed as a single integral unit.
39. The bowl according to claim 36 wherein said lid is provided with a dome
or other receptacle for holding a ground charge in said bowl when said bowl is
inverted.
40. A base plate for a bowl of a grinding head, the base plate adapted for attachment to a
side wall of the bowl and having a boss on one side for driving a grinder ring locatable
over the boss.